Competition, Product Proliferation and Welfare: A Study of the U.S. Smartphone Market*

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Abstract

This paper studies (1) whether, from a welfare point of view, oligopolistic competition leads to too few or too many products in a market, and (2) how a change in competition affects the number and the composition of product offerings. We address these two questions in the context of the U.S. smartphone market. Our findings show that this market contains too few products and that a reduction in competition decreases both the number and variety of products. These results suggest that product choice adjustment may exacerbate the welfare effect of a merger.

Key words: endogenous product choice, product proliferation, merger, smartphone industry

JEL Classifications: L13, L15, L41, L63

1 Introduction

In many markets such as the printer market, the CPU market and the smartphone market, firms typically offer multiple products across a wide spectrum of quality. In these markets, product proliferation is an outcome of firms' oligopolistic competition in product space. Does such competition result in too few or too many products from a welfare point of view? How does a change in the level of competition affect the number and composition of product offerings? In this paper, we study these two questions in the context of the U.S. smartphone industry.

For the first question, in theory, it is possible that oligopolistic competition results in either too few or too many products. On the one hand, because firms do not take into account the business...

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